IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Before the Board of Patent Appeals and Interferences

In re the Application of

Ola OLOFSSON

Serial No.: 10/761,401

Filed: January 22, 2004

For: **PROCESS FOR THE MANUFACTURING OF JOINING PROFILES**

APPEAL BRIEF

Thomas P. Pavelko
Registration No.: 31,689
NOVAK DRUCE & QUIGG LLP
1300 Eye Street, NW
1000 West Tower
Washington, D.C. 20005
Telephone: (202) 659-0100
Facsimile: (202) 659-0105

Attorney for Appellant

Date: July 13, 2009

(i) REAL PARTY IN INTEREST

The real party in interest is the assignee of the inventor's interest, Pergo (Europe) AB, which is a company organized under the laws of Sweden, having a principal address in Trelleborg, Sweden.

(ii) RELATED APPEALS AND INTERFERENCES

There is no known prior or pending appeals, judicial proceedings or interferences, known to Appellant, his assignee, or undersigned counsel which may be related to, directly affect, or be directly affected by, or have a bearing on the Board's decision in the pending appeal.

(iii) STATUS OF CLAIMS

Claims 21-25 and 27-34 stand finally rejected and are the subject matter of this appeal.

Claims 1-20, 26 have previously been cancelled.

(iv) STATUS OF AMENDMENTS

No amendment after Final Rejection has been filed.

(v) SUMMARY OF CLAIMED SUBJECT MATTER

(a) Independent claim 28 is directed to a floor comprising a first board (1) having edges (2) at least one of the edges comprising a projecting tongue (2') and a second board (1) having edges (2), at least one of the edges comprising a groove (2") having a depression (20) therein, the depression located distally of an innermost portion of the groove wherein at least one of the tongue (2') and the groove (2") is formed by broaching an impregnated broached portion (4) having a an angle not possible by milling, and the tongue (2') is inserted in the groove (2") see specification, beginning in the last two lines on page 4 through page 7, line 3 before the bottom of the page, and Figs 1d and 2d. An inside broaching tool performing the undercut 20 in the groove (2") is shown in Fig. 6 and an outside broaching tool for broaching the tongue is shown in Fig. 5.

(b) Independent claim 29 claims a floor comprising a first board (1) having edges (2), at least one of the edges (2) comprising a projecting tongue (2') and a second board (1) having edges (2) at least one of the edges (2) comprising a groove (2") having a depression (20) therein, the depression (20) located distally of an innermost portion of the groove (2"), wherein at least one of the tongue and the groove comprise a burr-free broached portion, such that the at least one of the tongue and the groove are shaped to form a locking joint (See Figs. 1d and 2d and the specification, page 1 under "Summary of the Invention" and the paragraph bridging pages 3-4 of the specification as well as the paragraph bridging pages 5-6 of the specification.

(c) Independent claim 30 claims a floor comprising a first board (1) having edges (2), at least one of the edges (2) comprising a projecting tongue (2') and a second board (1) having edges (2) at least one of the edges (2) comprising a groove (2") having a depression (20) therein, the depression (20) located distally of an innermost portion of the groove (2"), wherein at least one of the tongue (2') and the groove (2") comprise a broached portion, the broached portion having a geometry not capable of being formed by milling, such that the at least one of the tongue (2') and the groove (2") are shaped to form a joint (Fig. and the specification, page 1 under the heading "Summary of the Invention", the paragraph bridging pages 3-4 of the specification and the paragraph bridging pages 6-7 of the specification, especially the last sentence thereof.

(d) Independent claim 31 claims a floor comprising a first board (1) comprising an edge (2) comprising a tongue (2') a second board (1) comprising an edge (2) the edge (2) comprising a groove (2") defined by an opening in the edge (2) and an innermost portion the groove (2") further comprising a depression (20) positioned in a portion distal the innermost portion and comprising a broached portion, the broached portion having an angle sharper than possibly achieved by milling, wherein the first and second board are joined by the tongue(2') and groove(2") specification, page 1 under the heading "Summary of the Invention", last sentence of the paragraph, as well as the paragraph under the heading "Summary of the Invention" paragraph bridging pages 3-4 and the paragraph bridging 4-5 of the specification.

(e) Independent claim 32 is directed to a system for forming a surface comprising at least two boards, the system comprising at least one of the boards (1) having an edge (2) which includes wall surfaces defining a groove (2") at least one of the boards (1) having a edge (2) comprising a tongue (2') mateable with said groove (2") and said wall surface of said groove (2") having a portion which exhibits the characteristic surface of a milled surface and a portion which exhibits the characteristic surface of a broached surface (specification, page 1 under the heading "Summary of the Invention" as well as paragraph bridging pages 3-4 and 4-5 of the specification and Figs. 1d-2d.

(f) Independent claim 33 defines a system for forming a surface comprising at least two boards, the system comprising at least one of the boards (1) having an edge (2) which includes wall surfaces defining a groove (2") at least one of the boards (1) having an edge (2) comprising tongue (2') mateable with said groove (2") having a portion which shows the surfaces created by rotating milling tool and at least one portion of the surface of the groove (2) shows a smoother surface than that made by the rotating milling tool, the smoother surface formed by a broaching tool (3) (see specification, page 1 under the heading "Summary of the Invention" and the paragraph bridging pages 3-4 and pages 4-5 and Figs. 1d-2d).

(g) Dependent claims the patentability of which is separately argued

Claim 21, dependent on independent claim 31, defines the tongue (2') and groove (2") each comprising a milled polymeric material (5) as shown in Figs. 3d-4d, as described in the specification in the paragraph bridging pages 5-6 and in the paragraph bridging pages 6-7.

Dependent claim 22, dependent on independent claim 31, recites that at least one of the tongue (2') and groove (2") is glued to a core of the at least one of the first and second boards, with support being found in Figs 3c-4c and in the specification in the paragraph bridging pages 5-6 and 6-7.

Claim 24, dependent on claim 21, describes a polymeric material (5) as an extrudate before being milled, with support also being found in Figs. 3c-4c an 3d-4d and the paragraph bridging pages 5-6 of the specification.

(vi) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

(1) The rejection of claim 32 under 35 U.S.C. 112, second paragraph.

(2) The rejection of claims 24, 27-31 and 33 under 35 U.S.C. 102(b) as being anticipated by, or alternatively unpatentable under 35 U.S.C. 103(a) over, Moriau et al (U.S. Patent 6,006,486)

(3) The rejection of claims 21-23, 25 and 34 under 35 U.S.C. 103 (a) as being unpatentable over Moriau et al. in view of Serino (U.S. 6,357,197).

(vii) ARGUMENT

(1) Claim 32 stands rejected under 35 U.S.C. 112 second paragraph allegedly as being indefinite for failing to particularly point out distinctly claim the subject matter that applicant regards as her invention.

While the Examiner states "the characteristic surface of a milled surface" and the "characteristic surface of a broached surface" as recited in claim 32 are allegedly not clear the undersigned respectfully points out to the Board that the characteristic surface of a milled surface and the characteristic surface of a broached surface are not only clear but are well known to those having ordinary skill in the art to which the disclosure is directed.

While the Examiner purports to indicate she does not understand what the surface structure of a board having a surface showing the characteristics of broaching as well as surface structure of a board showing the surface characteristics of a board which has been milled, one skilled in the art, such as that of Fredrik Schlyter, whose Declaration is present under 37 C.F.R.

1.132 (copy attached in the Evidence Appendix) specifically states (paragraph 6) that "in my experience, industrial and commercial manufacturing of the groove and tongue edges (herein collectively "Joint Edges" can generally be accomplished by milling; however at least some joint configurations require Joint Edge configurations having angles where milling alone cannot be used during commercial manufacturing". An example of such angle was illustrated by Declarant in paragraph 7 of his Declaration, wherein further declarant states that "milling requires the rotation of the cutting tool, rotating at a high speed with respect to the work". See also the description provided by the applicant in the original specification on page 1 under the heading "Field of the Invention" "It is difficult to achieve complex cross sections with traditional milling" and furthermore "vibrations and flexing in the [milling] machine" can make it difficult to obtain desirable tolerances.

As Declarant continues in paragraph 8 of his Declaration, "the present invention utilizes a combination of conventional commercial milling with "broaching" to form the Joint Edge shapes impossible to achieve by commercial milling".

Thus, as described by both the worker skilled in the art, as well as applicant in his original specification, milling involves a rotating tool operating at high speed and when used to form the Joint Edges of the panels of the instant claim 32, would have poor tolerance because of the vibration and flexing inherent in such milling operation. By contrast, broaching by use of one of the broaching tools (as shown in Figs. 5 or 6), is similar to a "planeing" in which each tooth of the broaching removes a small amount of material in progressive heights because each of the teeth are arranged to cut progressively deeper into the material when relative linear motion is effected between the broaching tool and the work. Such is described in the specification beginning at the foot of page 7 and continuing through the foot of page 9, Thus, not only has applicant described in the original specification the "characteristics" of each of milling and broaching but the declaration of one skilled in the art recognizes the characteristics are not the same and make it possible for the first time to obtain a product not previously obtainable by milling alone.

In the final rejection in the section entitled "Response to Arguments" beginning at page 6 thereof, the Examiner points out the "applicant further argues that applicants (sic) pointed out in page 4 of the specification, what they regard as the characteristics of a milled surface and what they regard as a characteristics of a broached surface". While the Examiner then erroneously goes on to state that "the claims are read in light of the specification, limitation and/or structure, (i.e., exactly what the milled/broached surface characteristics are), specifically defined in the disclosure) specification are not read into the claimed invention" applicant only rely on the specification as a teaching tool to educate the Examiner as to what the characteristic milled portion as compared to the characteristic broached portion would be. Rather, one skilled in the art would know, as evidenced by the Declaration of record of Schlyter, how these characteristics can be recognized by one skilled in the art. Applicant has stated what her invention is and merely because the Examiner is unfamiliar, has never been exposed to, or has a lack of comprehension of what a milled surface would appear to look like as compared to what a broached surface would appear to look like, does not equate to a failure of the appellant to "particularly point out and distinctly claim the subject matter which the applicant regards as his invention". It would appear here that the Examiner wants to define the subject matter to conform to the Examiner's conception of what "the invention" is.

As the CCPA stated in *In re Borkowski, 164 USPQ 642, 645(CCPA 1970)*:

"the Examiner's approach to determining whether Appellants' claims satisfy the requirement of §112, appears to have been the study of Appellants' disclosure, to formulate a conclusion to what he (the Examiner) regard as the broadest invention supported by the disclosure, and then to determine whether Appellants' claims are broader that the Examiner's conception to what "the invention" is. We cannot agree that §112 permit such an approach to claims".

Thus, even though it is apparent that the Examiner found that claim 32 is directed to a system comprising at least two boards where the wall surface of the groove on one of the boards has a portion which exhibits the characteristic surface of a milled surface and a portion which

exhibits the characteristic surface of a broached surface, and furthermore the Examiner has cited no art in connection with the rejection of these claims under 35 U.S.C. 102 and/or 103, apparently, no amendment of the claim is required as to avoid any of the prior art of record and the Examiner's purported ignorance of what the claimed subject matter is cannot withstand scrutiny in light of the authority above, the Declaration Evidence of Record and even applicant's description in the specification of milling and broaching which would educate even the tyro in the art. For all the foregoing reasons, reversal of the rejection based on 35 U.S.C. 112, second paragraph is respectfully requested.

(2) Turning now to the prior art rejections of claims 24, 27-31 and 33 under 35 U.S.C. 102(b) as anticipated by (or under 35 U.S.C. 103(a) as obvious over) Moriau et al. (U.S. Patent 6,006,486), it is clear that neither of these rejections can be sustained as the Examiner's rejection contain both legal and factual errors.

In order to constitute anticipation a single prior art reference must teach each and every element of the claimed invention. See generally MPEP section 2131 and the cases cited therein. While the Examiner explicitly notes the recitation "the broached portion having angles sharper than possible by milling", (Claim 28), the Examiner has not found any prior art teachings in Moriau to anticipate this feature. The Examiner dismisses applicant's recitation in the claims as either "product-by-process limitation" or by stating that "either the tongue and groove, having a broached portions having angles sharper than possible by milling, does not positively define an end result product".

The Examiner is erroneous on both accounts. Firstly, as to the supposed product-by-process limitation, the limitation in question is structural, not process i.e., "having an angle not possible by milling". As noted in the aforementioned Declaration of Schlyter, the angles now required within the grooved portions of panels are impossible to form solely by rotating tools of which milling is exemplary. Only by the use of broaching (i.e. a non-rotary shaping) can such joint edge shapes be achieved (paragraph 8 of the Schlyter Declaration). On the other hand the prior art Moriau only teaches milling, never mentions broaching and thus cannot not possibly act,

either expressly or inherently describing, as an anticipatory reference of the claimed subject matter. Because the Examiner allegedly cannot even appreciate the difference between the surfaces in the claim and the surfaces found in Moriau see "presumes" that the claimed subject matter does not positively define the structure of a product that is "different"[distinct] from the prior art. However, in order to constitute anticipation the legal standard requires "identity", not mere similarity and not probability or possibility. Thus, the Examiner's position that the recitation of structure "having an angle not possible by milling" is not really a structure at all, but rather a process limitation, is clearly erroneous. The Examiner's further contentions that such structure "does not positively define an end result product" is also clearly wrong in light of the Schlyter Declaration, paragraph 8 "the present invitation ...shapes impossible to achieve by commercial milling".

Furthermore, the Examiner specifically notes various limitations of applicant's claims as listed at the top of page 4 of the final rejection "tongue and groove comprise both a milled and a broached portion", the "groove comprises both milled and broached portions", "polymeric materials is an extrudate before being milled", "at least one of the tongue and groove is formed by broaching an impregnating milled portion", "wherein at least one of the tongue and groove comprises a burr-free breached portion", "at least one of the tongue and groove comprise a broached portion...not capable of being formed by milling" to be "product-by-process limitations", citing Serino (U.S. Patent 6,357,197).

Not only is this clearly erroneous wherein the recitations are clearly structural, for example, and furthermore defining "polymeric material is an extrudate" or "tongue and groove comprising a burr-free broached portion" are all structural limitations not having anything to do with product-by-process.

Even more inexplicable is the Examiner's reliance upon the Serino reference in an alleged case of anticipation by Moriau et al. alone to show milled, broached, sharp angles, burr-free & geometry, it is clear that because the Examiner has invoked Serino, he has conceded that Moriau et al cannot possibly be anticipatory of further recitations of claims 24, 27-30 and 33.

For all the foregoing reasons reversal of the rejection of anticipation under 35 U.S.C. 102 (b) over Moriau et al alone is respectfully requested.

In the alternative rejection over the same Moriau et al alone reference under 35 U.S.C. 103 (a) the Examiner again erroneously deems the claims to be "product-by-process claims" though none of claims are defined by particular process language.

It is important to note that applicant is not claiming a floor formed by milling or a floor formed by broaching, but rather claim specific parts of the structure of the individual panels in which individual parts of the panels are shaped as joint forming edges of the panels to exhibit tongue and groove portions which exhibit surfaces not found in the prior. As noted during the discussion of the rejection under 35 U.S.C. 112 second paragraph, broached surfaces show characteristics similar to planeing, where milled surfaces show characteristics of a rotating tool. Because the linear motion of broaching is different from the rotary motion of milling the structural limitation recited in the claims are clearly not "product-by-process" limitations but rather structural limitations. Because Moriau does not even hint at any type of process of broaching and is completely silent on "broaching" it cannot possibly teach or make obvious any product having a broached surface. Accordingly, the rejection under 35 U.S.C. 103(a) must also fail.

(3) The rejection of claims 21-23 and 25 under 35 U.S.C. 103(a) over Moriau et al in view of Serino et al. Here the Examiner concedes "Moriau does not disclose the tongue and groove comprise a milled polymeric material". He is silent but from what was discussed above concerning Moriau et al., the reference also does not disclose "broaching", Serino also fails to teach milling and broaching. Thus, the combination of references still fails to establish a prima facie case of obviousness.

(viii) CLAIMS APPENDIX

The appendix containing a copy of the claims involved in the appeal is attached.

(ix) EVIDENCE APPENDIX

The attached Declaration of Frederik Schlyter, submitted under the provisions of 37 C.F.R. 1.132, was originally filed on July 11, 2008.

(x) APPEALS APPENDIX

Not applicable

In view of the foregoing reasons, reversal of all rejections by the Board are respectfully requested.

Respectfully submitted,

Thomas P. Pavelko

Date: July 13, 2009
Atty Docket No. 8688.019.USDV00

APPENDICES

The following Appendices are attached to and made a part of this brief:

Appendix A	Claims on Appeal
Appendix B	Evidence
Appendix C	Related Proceedings (N/A)

APPENDIX A: Claims on Appeal

21. The floor of claim 31, wherein the tongue and the groove each comprise a milled polymeric material.

22. The floor of claim 31, wherein at least one of the tongue and the groove is glued to a core of the at least one of said first and second boards.

23. The floor of claim 31, wherein the polymeric material is selected from the group consisting of thermoplastic and lacquer.

24. The floor of claim 21, wherein the polymeric material is an extrudate before being milled.

25. The floor of claim 31, wherein at least one of the first board and the second board comprises a core, the core being formed from wood fiber board.

27. The floor of claim 31, wherein at least the groove comprises both milled portions and broached portions.

28. A floor comprising:

a first board having edges, at least one of the edges comprising a projecting tongue; and

a second board having edges, at least one of the edges comprising a groove having a depression therein, the depression located distally of an innermost portion of the groove;

wherein at least one of the tongue and the groove is formed by broaching an impregnated milled portion, having an angle not possible by milling and the tongue is inserted into the groove.

29. A floor comprising:

a first board having edges, at least one of the edges comprising a projecting tongue; and

a second board having edges, at least one of the edges comprising a groove having a depression therein, the depression located distally of an innermost portion of the groove;

wherein at least one of the tongue and the groove comprise a burr-free broached portion, such that the at least one of the tongue and the groove are shaped to form a locking joint.

30. A floor comprising:

a first board having edges, at least one of the edges comprising a projecting tongue; and

a second board having edges, at least one of the edges comprising a groove having a depression therein, the depression located distally of an innermost portion of the groove;

wherein at least one of the tongue and the groove comprise a broached portion, the broached portion having a geometry not capable of being formed by milling, such that the at least one of the tongue and the groove are shaped to form a joint.

31. A floor comprising:

a first board comprising an edge, the edge comprising a tongue;

a second board comprising an edge, the edge comprising a groove defined by an opening in the edge and an innermost portion;

the groove further comprising a depression positioned in a portion distal the innermost portion and comprising a broached portion, the broached portion having an angle sharper than possible by milling,

wherein the first and second boards are joined by the tongue and groove.

32. A system for forming a surface comprising at least two boards, the system comprising:

at least one of the boards having an edge which includes wall surfaces defining a groove;

at least one of the boards having an edge comprising a tongue mateable with said groove; and

said wall surface of said groove having a portion which exhibits the characteristic surface of a milled surface and a portion which exhibits the characteristic surface of a broached surface.

33. A system for forming a surface comprising at least two boards, the system comprising:

at least one of the boards having an edge which includes wall surfaces defining a groove;

at least one of the boards having an edge comprising a tongue mateable with said groove; and

has a portion which shows the surface created by a rotating milling tool and at least one portion of the surface of the groove shows a smoother surface than that made by the rotating milling tool, the smoother surface formed by a broaching tool.

34. The system of claim 33 wherein the wall surface of the groove is formed from medium density or high density fiber board.

APPENDIX B: Evidence Appendix under 37 CFR §41.37(c)(1)(ix)

Declaration under 37 CFR 1.132 of Fredrik Schlyter

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application

Ola Olofsson

Group Art Unit: 3725

Application No.: 10/761,401

Examiner: S. Self

Filed: January 22, 2004

Confirmation No.: 3311

For: PROCESS FOR THE MANUFACTURING OF JOINING PROFILES

DECLARATION UNDER 37 CFR §1.132 OF FREDRIK SCHLYTER

Commissioner for Patents
PO Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

1. I, Fredrik Schlyter, am currently an employee of the Assignee of the above-identified patent application.

2. I am familiar with the art to which this invention pertains, *e.g.*, joints for building panels, and thus am one skilled in the art to which this invention pertains.

3. I am aware of the invention claimed in the above-identified application, including the Office Action mailed January 11, 2008, and the Examiner's statement therein that:

> Examiner notes that either the tongue or groove, having a broached portion having angles sharper than possible by milling, does not positively define an end resultant product, i.e. surface comprised of a plurality of boards having joint connection between the boards that is patentably distinct from the prior art of record. Further examiner notes the process by which the end result product (surface comprised of plurality of boards having a joint connection between the boards) is made is not germane to the patentability of the end resultant product;

4. I have been made aware that there is authority that the method by which an article is made does have an affect on the patentability of the product, e.g., a "product by process" limitation, which the examiner acknowledges in the sentence of the office action immediately preceding the quoted section (Office Action of January 11, 2008, page 3, third full paragraph).

5. In the instant case, this "product by process" limitation does positively define the structure of the product, *i.e.*, by reference to an angle in the tongue or groove which cannot be made by milling.

6. In my experience, industrial and commercial manufacturing of the groove and tongue edges (hereinafter collectively "Joint Edges") can generally be accomplished by milling; however, at least some joint configurations, require Joint Edge configurations having angles where milling alone cannot be used during commercial manufacturing.

7. An example of such positioning of angles occurs within the groove illustrated below:

In commercial or industrial manufacturing of joints of this type, relying solely on rotating tools is impossible. Specifically, milling requires the rotation of a cutting tool, rotating at a high speed with respect to the work. In order to mill a groove of this type, the rotating tool must have a shaft small enough to pass into the groove. Unfortunately, such shaft diameters are insufficient to support the rotating tool at speeds necessary for commercial manufacturing, as such narrow shafts will break or otherwise fail.

8. The present invention utilizes a combination of conventional commercial milling in combination with broaching to form the Joint Edge shapes impossible to achieve by commercial milling.

9. Thus, this is a case where the process limitation produces a product which cannot be obtained by commercial milling alone.

10. Commercially milled products could not be made to have the angles achievable only by broaching.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made in punished by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that sueh willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: 05/12/2008

Fredrik Schlyter

APPENDIX C: Related Proceedings Appendix under 37 CFR §41.37(c)(1)(x)

N/A